

## Durham Research Online

---

### Deposited in DRO:

09 September 2016

### Version of attached file:

Accepted Version

### Peer-review status of attached file:

Peer-reviewed

### Citation for published item:

Saha, B. (2015) 'From rigidity to flexibility.', in Labour, employment and economic growth in India. Delhi: Cambridge University Press, pp. 221-238.

### Further information on publisher's website:

<http://www.cambridge.org/gb/academic/subjects/economics/economic-development-and-growth/labour-employment-and-economic-growth-india>

### Publisher's copyright statement:

This material has been published in Labour, Employment and Economic Growth in India by / edited by K. V. Ramaswamy. This version is free to view and download for personal use only. Not for re-distribution, re-sale or use in derivative works. © Cambridge University Press 2015

### Additional information:

---

### Use policy

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a [link](#) is made to the metadata record in DRO
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

Please consult the [full DRO policy](#) for further details.

# **From Rigidity to Flexibility: Changes in the Indian Labour Market**

**Bibhas Saha**

Durham University Business School, United Kingdom

Email: [b.c.saha@durham.ac.uk](mailto:b.c.saha@durham.ac.uk)

## **Abstract**

The Indian labour market has recently witnessed many trends such as outsourcing and contractual hiring that may be regarded as employers' attempts to bypass rigid labour legislations and militant trade unions. This chapter looks at some theoretical issues surrounding labour market rigidity and provides an overview of current research for India. In addition it discusses how in a dualistic economy the incentive for contract hiring gets accentuated with trade liberalisation and increased unionisation. Our analysis suggests that labour laws should be reformed; otherwise the subversive trends of production outsourcing and contract hiring will go unabated.

**Keywords:** Contract employment, rigidity, trade liberalisation, dualism, labour regulations

**JEL classification:** J23, J52, K31

## 1. Introduction

For decades the Indian labour market has been regarded as highly rigid. Seeing it from the employers' perspective, it is clear that the employers have been *legally* restricted to restructure their labour force or layoff even a single worker, thanks to some job security provisions of the Industrial Disputes Act. When militant unions and bureaucratic red tapes are added to the job security laws, we get the picture of an economy where large industries will be reluctant to make new hiring, because it will be difficult to shed them later.

It is also the case that the last fifteen years' growth in the Indian economy, at least the manufacturing component of it, has led to a disproportionate expansion of the informal sector, accompanied by outsourcing and substitution of permanent labour for contract labour. Overall, the informal sector employment and the hiring of contract workers in the formal sector have gone up significantly. Critics might call these developments a swing to the other end of the rigidity scale – rampant flexibilisation, or informalisation of the Indian workforce. For a number of reasons one need not see this as a healthy trend. If the informal sector workers do not experience significant income gains, then the prospect of urban poverty reduction is grim. It is also the case that the informal firms are unlikely to graduate to the formal sector and offer a somewhat secure work environment to their workers. They are still regulation free like a 'wild West of the cowboy capitalists'.

Question is: Are we seeing an evolution of the middle ground, or is the labour market acting like a seesaw, or are these simply subversive acts? The rigidity has not disappeared, not in *law* and *labour regulations*, but the *practice* has allowed flexibility. Since practice is hard to regulate, the nature of flexibility will be determined by the incentives created by external and domestic opportunities, as well as the physical capabilities to respond to opportunities. For instance, to meet a large export order, whether a formal sector firm will hire permanent workers, or contract workers, or outsource to an informal firm, depends on the union it faces, the links it has with the local informal sector, and crucially the infrastructural bottlenecks all firms face. In this paper, I discuss this issue by drawing from some of the theoretical and empirical researches.

## 2. Understanding and detecting rigidity

There are several ways to understand rigidity. To begin with let us be clear about one thing. Nowhere is labour market completely free from any regulations. Labour market is very different from markets for physical goods. For a number of reasons completely unrestricted functioning of the labour market is neither possible nor desirable. Even in the informal sector both employers and workers try to engage in long term contracts making transactions across time. Clearly, this will not be possible unless social norm allows them to trust each other and make promises and honour them in return.

At a conceptual level, labour market interventions are just like any other interventions needed for correcting market failures. Labour market failure occurs due to distributional conflicts as well as asymmetric information and uncertainty. Of course all interventions come at some cost, the magnitude of which depends on the design of interventions and the legal and political institutions. There are three approaches to explain labour market institutions: institutional theory, political power theory and legal theory. I provide a brief discussion of each.

**The institutional theory:** North (1990) argued that institutions help achieve efficiency by reducing transaction costs, which would otherwise cause market failures and restrict social welfare. In the context of the labour market, for example, the workers and their employer cannot costlessly negotiate on how to share the organizational surplus. This is because the employer has superior information on the true size of the organizational surplus and therefore has incentive to understate it. The workers in turn cannot trust the employer, and therefore they have to engage in a costly and lengthy process of negotiations, which might lead to strikes or lock-out. These actions are socially inefficient and cause market failures. Therefore, regulations should aim to restrict opportunistic behaviours or impose obligations to disclose private information, in order to make negotiations as smooth as possible.

**The political power theory:** According to political power theory, those who capture political power will transfer resources from those who are not in power, and this task is accomplished by designing the appropriate regulations and institutions. The origin of this argument is found in Marx; but it has been refined and adapted to modern settings in the works of Olson (1965), Stigler (1971), and Becker (1983). It comes in various flavours. Marx was concerned about

capitalist exploitation and appropriation of surplus labour, and he saw a political system was designed to facilitate this exploitation. The only way this could be rectified, in his view, was abolition of private property (at least the large industrial units) through a new political system brought about possibly by revolution. But in modern democracies with universal suffrage, where political power can be acquired only by winning elections, resources are transferred to pressure groups. The ideology of the ruling party can also be important. A pro-labour party will legislate in favour of the workers regarding the regulation of working conditions and/or industrial disputes. One may recall that when the former Prime Minister Indira Gandhi introduced the Chapter VB restriction in Industrial Disputes Act in 1976 prohibiting layoffs and retrenchment in factories of 300 or more workers, she had already declared emergency throughout the country, which virtually ruled out strikes, protests and any form of workers' unrest. This made her appear like pro-employer. So perhaps to avoid that unfavourable tag, she moved to the other extreme and introduced this extremely pro-labour legislation, which later on proved to be controversial.

**The legal theory:** One may view legal theory as a part of institutional theory, because all laws are formal institutions. However, a separate discussion of it is warranted on the ground that historically today's legal systems around the world come from two major (and distinct) legal traditions in Western Europe, namely common law and civil law. These two traditions are very old going back to twelfth century and they were transported to different countries via colonization. The common law tradition emerged in England and it is characterized by the importance of decision-making by juries, independent judges, and more importantly by the emphasis on judicial discretion as opposed to codes. India, like all other British colonies, inherited this tradition. Civil law, on the other hand, evolved from Roman law through the middle ages, and was incorporated into civil codes in France and Germany in the nineteenth century. Civil law is characterized by a greater role of both substantive and procedural codes as opposed to judicial discretion and independent judiciaries. Much of modern Europe, North and West Africa, all of Latin America, and some parts of Asia have inherited this system.

It is generally argued that common law countries tend to regulate less and rely more on markets and contracts, whereas civil law countries legislate and regulate more and try to directly control businesses (Djankov et al. 2003). The legal tradition matters not only for the extent of legislation, but also for the enforcement practice, and its effect on the behaviours of the economic agents.

In a seminal paper Botero et al. (2004) investigate the institutions of labour markets in 85 countries by categorising the laws and regulations under three broad heads: employment regulations, collective bargaining regulations, and social security laws. They find that the leftist ideology of political parties is associated with more stringent regulations as a whole and common law countries have less labour regulations. Stringent regulation of labour also causes lower labour force participation and higher youth unemployment.

There is now a substantial research on the economic effect of labour market rigidity. Earlier economists used a so-called labour demand approach due to Nickell (1986) in which the effect of any restrictive regulation will be detected from a depression of the labour demand curve.<sup>1</sup> This approach was taken by Fallon and Lucas (1991, 1993) and Dutta Roy (2003). Fallon and Lucas (1991, 1993) modelled the effect of the introduction of the job security provision via Chapter VB of the ID act in 1976. They showed that the job-security regulation of 1976 did not affect the adjustment cost (i.e. no change in the rigidity), but it reduced the long run industrial employment by 17.5 per cent on the aggregate. Eleven of the 35 (two-digit) industries suffered loss in employment. In particular, cotton textile industry had a loss of 36.1 per cent employment, soaps and cosmetics 33.3 per cent, and silk and synthetics as high as 44.8 per cent.<sup>2</sup> Dutta Roy (2003) developed a simultaneous equation system of dynamic labour and capital demands with labour further disaggregated between workers and supervisors and covering longer time period (1960-1994). No doubt hers is by far the best modelling of dynamic labour demand available for the Indian industry. She tested for long run adjustment costs through the identification of rigidity, and then examined whether the job-security provisions of 1976 and 1982 have worsened it. Her findings are mixed and industry-specific. More importantly, in some industries, there was no effect of the legislation on the rigidity, and in other industries the rigidities were seen to exist well before 1976. Her findings suggest that there are deeper structural characteristics that have contributed more to the rigidities than the legislative provisions of job-security.

This brings us to the question of to what extent additional legislations add or alter the labour market rigidity. Perhaps a better approach would be to take all the labour laws and regulations together and try to quantify its effect on output or employment. Besley and Burgess (2004) have precisely taken such an approach. They exploited a key historical fact

---

<sup>1</sup> See also Nickell (1997) for an in-depth analysis of this approach.

<sup>2</sup> The magnitude of the decline in potential employment as claimed by Fallon and Lucas was contradicted by Bhalotra (1998) and Dutta Roy (2003). Both argued that the estimated loss of employment was exaggerated due to the inclusion of those industries for which the results were not statistically significant.

that all states in India started from the same set of labour laws in 1947, but subsequently diverged from each other through various amendments of the ID act. The amendments were at times pro-workers and at other times pro-employer or neutral. So the aggregate effect of these amendments over time can be seen as an outcome of which changes were dominant. If a state has made most of the changes in favour of the employers, then after many years it should turn out as a pro-employer state. Following this logic, they classified four states, namely Gujarat, Maharashtra, Orissa and West Bengal as pro-workers, while Andhra Pradesh, Madhya Pradesh, Rajasthan, Tamil Nadu, Karnataka and Kerala as pro-employers, and the remaining states as neutral.

Next, by using the quantitative measure of the bias in labour regulations as an explanatory variable, they show that the state registered manufacturing outputs fell with pro-labour legislation, and while the state unregistered manufacturing showed a stronger positive relationship with labour rigidity. Their point is that pro-worker states have lost out on the registered manufacturing.

Several other studies utilised the Besley-Burgess classification of labour rigidity and explored a number of related issues. These are notably, Aghion et al (2005), Hasan et al. (2007) Ahsan and Pagés (2009), Adhvaryu et al. (2013), and Saha et al. (2013), all confirming the negative effects of rigidity.<sup>3</sup> However, there is a criticism of the Besley-Burgess approach raised by Bhattacharjea (2006) who found several errors in coding of the labour laws, with some of the changes can significantly affecting the aggregate score for some states. Ahsan and Pages (2009) took this modification into account and showed that those alleged errors do not affect the general conclusion. Moreover, they segregated the labour laws in two broad categories – employment protection legislation and the dispute resolution legislations, and show that their effects on employment and outputs are different. So there is now ample evidence that labour rigidity is causing significant loss of employment and other ill effects, and no longer can we afford to ignore it.

---

<sup>3</sup> Aghion et al (2005) find that in comparison to the neutral states the relative effects of industrial deregulation has been significantly positive for the pro-employer states, and significantly negative for the pro-worker states. Hasan et al. (2007) show that after trade reform the elasticity of labour demand has increased in all industries, but they are larger in pro-employer states. Adhvaryu *et al.* (2013) showed that industrial employment is more sensitive to shocks in areas where labour regulations are less restrictive or more pro-employer. Finally, Saha et al. (2013) captures another effect of rigidity, substitution of permanent workers for contract labour. This is significant in pro-labour states.

### **3. Imperfect flexibility**

In the early 1990s the Indian government was so concerned about the job security provision and its possible links with liquidation difficulty with bankrupt firms (commonly called as sick industrial units) that it asked an expert committee to come up with an exit policy document. This gave rise to an expectation that the rigid labour laws would be reformed, which was not only advised by academics and policy experts, but also demanded by the Indian corporates and foreign investors. But politicians did not dare touch the labour laws, even though the old architecture of industrial regulation, licensing and trade protections was dismantled one by one within a relatively short span of time. The reason for leaving the labour laws unchanged was political. Despite representing only 10% of the workers, large unions remained a grand symbol of labour interests, and anti-union measures were, and are still, eared to be judged anti-people.

So in replacement of legal reforms, flexibility was offered in practice. The 1972 Contract Labour Regulation Act provided a compromise, allowing firms to hire workers on contract, who can be fired at will and kept out of unions. The unions did not see that as a major challenge to their role as rent-sharer. Moreover, contract employment is better than outsourcing, which poses a much bigger threat to their rents and eventually to their jobs. The share of contract workers increased from 12% in 1985 to 26% in 2004. The trend is much stronger in states like Andhra Pradesh, Madhya Pradesh, Maharashtra and Rajasthan. Between 1998 and 2004 the share of contract workers in organized manufacturing employment has gone up from 15% to 51 in Andhra Pradesh, from 16% to 28% in Madhya Pradesh, from 15% to 27% in Punjab and from 21% to 33% in Rajasthan. Some of the states like Bihar, Uttar Pradesh and Orissa already had much proportion of contract labour. On the other hands, states like Kerala, Tamil Nadu, Karnataka, Assam and West Bengal have much lower incidence of contract labour, though in all of these states there has been an increasing trend (Saha et al., 2013).

Outsourcing also thrived, though, largely at the expense of in-house employment, rather than current employment; firms tend to outsource often to meet a sudden spike in demand. So this may not necessarily be seen as a union-busting strategy. Besides there is a limit to outsourcing as the economics of 'make or buy' strategy calls for striking a balance between cost of coordination and quality control and the benefit of lower costs. Ramaswamy (1999) noted that the incidence of outsourcing is significant in large labour-intensive factories



(which employ more than 50 workers). For instance, in 1992-93 the share of outsourcing in the value-added was in the order of 56% in textile industries. His disaggregated analysis provides a further insight that the consumer non-durables industries have the highest subcontracting intensity and their average labour intensity is also the highest. In contrast the intermediate goods industries have the lowest subcontracting intensity and value-added share.<sup>4</sup>

But flexible practice does not fully make up for the lack of flexible labour laws. For one thing, practice is rarely going to be transparent and easily transferable knowledge. One needs to invest in relationships and network to carry out profitable and reliable outsourcing or contract hiring; further, this may not be uniform across India, as each state has modified the Contract Labour Act and the Industrial Disputes Act in their own ways to make the local labour markets sufficiently opaque to deter new entrants or foreign investors, who largely respond to the Central government's call. So for the foreign firm, entering India and choosing a particular state as entry point will require substantial research resulting in higher entry costs. Existing Indian firms do have some advantage in this regard. Nothing is more important than a transparent legal and regulatory system that can attract large volumes of foreign investment.

Take the case of China. During the planning era, local and regional bureaucrats in China used to allocate workers to factories very much like physical inputs. This was also linked to a household registration system, which could allow a worker to move to another city or town only after he could secure a residence there; this was known as the *Hukou* system. Enterprises were also required to make room for new workers regardless of their needs. Three important labour reforms were carried out between 1984 and 1994: (1) wage reform, (2) elimination of bureaucratic labour allocation system, and (3) introduction of new labour laws permitting hire and fire.

Most of the labour laws that regulate China's industrial relations are new – legislated after 1985. Among these notable are Trade Unions Act, 1992 (Amended in 2001), Labour Act, 1994 and Regulations on Collective Contracts, 2004 (Decree 22 of the Ministry of Labour and Social Security). See Chan (2000) and Solinger (2002) for more.

The Trade Unions Act, 1992, which drastically replaced the 1950 version of the same act, has granted all workers everywhere the right to form union. But the union must be affiliated to

---

<sup>4</sup> See also Mazumdar and Sarkar (2013) for a more detailed discussion of wage and productivity growth in the Indian manufacturing sector. Autor (2003) is another important contribution on this topic.

the All China Federation of Trade Unions (ACFTU), the only trade union nationally recognised. Thus, China has ruled out multiple trade unions. Critics point out that the Trade unions Act does not mention 'strike' anywhere and workers are advised to behave in a disciplined manner during a dispute. The Labour Act, 1994 acknowledges labour as a contractible object, and paved the way for several new phenomena such as 'collective contracts', 'floating wage rules' and 'layoffs and retrenchments'. The contracts can be firm-and/or job-specific, and fixed term, with no promise of renewal. Further, the employing enterprise can breach the contract on grounds of financial distress. However, dismissal requires a notice of 30 days and payment of compensations. The Regulations on Collective Contracts, 2004 specifies that a collective contract should be determined by 'collective bargaining'. For more on this see Saha (2006).

It is clear from the above discussion that China completely revamped its labour legislations; this was needed to exercise greater control on its labour force, but to inform the outside world that China is ready to do business. Not only can the abundantly cheap and relatively skilled workers be hired and fired at will, but the industrial disputes will be efficiently resolved by the intervention of the State. In fact, the disputes were to be pre-empted by the state's labour arm ACFTU. The result of a clear cut labour regime is there for all to see.

In contrast, India chose to disengage from the management of the industrial disputes regulations, leaving things to the unions and firms to fight it out. Therefore, labour practice became more important than labour law. One may criticize the Besley-Burgess classification of the Indian states on the ground that legal changes do not matter much; practices are far more important. Though Kerala was classified by them as pro-employer, Gujarat and Maharashtra as pro-worker, going by the experience on the ground one would claim that Kerala is pro-worker and Gujarat and Maharashtra are pro-employer. The volume of investment received by the latter two states also suggests that investors look at the practice more carefully than law.

Yet it is to be recognised that in the absence of a legal reform we are relegated to a second best environment. Flexible practice requires additional investment, and disputes can be harder to resolve. An efficient framework reduces collective wastes from industrial disputes that are colossal, by the international standard. It is observed that though there is a declining trend of the incidence of industrial disputes (strikes and lockouts) after the liberalisation, the number of disputes is still 500 per year (2001-2007) with an average loss of 25.20 mandays per

dispute, with bulk of the disputes being lockouts – 48.60% of all disputes. Before 1991, the share of lockouts in the total disputes was merely 20.39% (1981-1990); for more see Pal and Saha (2013).

#### **4. Unions and the segmentation of the labour market**

Economists largely accept that labour unions play many positive roles. First, they reduce the employer's cost of negotiating with a large number of workers, simply by coordinating with all workers. They also facilitate collective actions (such as a strike), and thereby internalize externalities and eliminate potentially destructive free riding by individual workers. Second, labour welfare should be a desirable objective in itself. In countries like India where the government is less capable of redistributing resources via targeted taxes and subsidies unions directly help to transfer income to the working class. Third, contrary to popular perceptions unions are not necessarily detrimental to firm efficiency. The efficient bargaining protocol, if properly followed, will convert the union's role to a partner in the efficient selection of inputs, without sacrificing its interest in rent-sharing (McDonald and Solow, 1982). Some economists have even argued that unions would boost efficiency by encouraging firms to undertake socially optimal training (Booth and Chatterjee, 1996).

While the above arguments are not disputed, one may raise concerns about dynamic implication of unions, and the institutional framework for collective bargaining. Over time unions tend to evolve more as firm-specific or industry-specific rent-sharers acting exclusively on behalf of their members, i.e. the currently employed workers of that firm or industry. They do not represent the wider working class; nor do they even take into account the interests of future employees; essentially they are dictated by the interest of the insiders (Lindbeck and Snower, 1986). The institutional protocols of collective bargaining in the real world rarely emulate the efficient bargaining model. In most countries wage alone is subjected to negotiation with employment largely left to the discretion of the employers. In other words, the real life protocols are some variants of the 'right-to-manage' model of bargaining or monopoly union model (Oswald, 1982), which are known to be notoriously inefficient. Union's ability to hold up and inflict significant exit cost on the firm can also cause inefficiency of capital choice (Grout, 1984). The long history of employers' exploitation and natural mistrust between them and their workers are partly responsible for

the choice of such inefficient bargaining mechanisms that influence the unions' behaviours and the image they create in public's mind.

At another level, unions respond to incentives just as any economic agents would do. Seeing their firm earning economic rents due to temporary or long term market protection, the workers would try to claim a share of that. It is a natural response. One difficulty, however, is ascertaining the size of the rent. Financial data (such as sales, profit and loss) are something that management is unlikely to share with the union, except what is furnished with the government after (possibly creative) tax calculations. Therefore, dispute is unavoidable not only with what should be the fair share of the surplus, but also with the size of the surplus itself. The theoretical literature on strike (Hart, 1989; Sanchez-Pages, 2009) revolves around asymmetric information and divergent beliefs among the workers and employers. So when the unions go on strike, it is not unjustified, but there is a consequence to it; the whole industry may suffer, and when the unions (again driven by severity of information asymmetry) go too far, the employers may resort to other alternatives, such as avoiding the unions altogether, which is the 'flexible' employment practice that we have noted earlier.

In one sense, informal workers are to be seen as competitors by the unions, and therefore they have reason to campaign for banning informal employment. In fact, in Western economies prohibition of informal employment, child labour and similar practices have all been banned at the behest of organized labour. In developing countries, organized labour knows that they are a minority and therefore they have held a sympathetic view about their poor cousin in the informal sector; but they also think that the protection of workers' welfare and job security in the formal sector is a priority. The same benefits should be eventually extended to all workers once the economy becomes developed. Here lies a problem. We know from the literature of dual economy that formal-informal dualism is not a transitory one; it may stubbornly persist, and it can segment the labour market on both the demand and the supply sides.

In a recent paper, Saha et al. (2013) have tried to study such dualism in the context of India's recent trade liberalisation. The Indian industry can be characterised by three types of dualism. In terms of the exposure to the government regulations there are two sectors -- formal and informal. In terms of technology, some are modern and others are backward, finally in terms of the skills of the workers, some employ skilled workers and others are just happy with the unskilled workers. In sum, dualism can be presented in terms of regulation, technology and workers' skills. It is plausible to expect that the informal sector firms will be small,

dependent on backward technology and largely will employ unskilled workers. But the formal sector firms can be large or small, and could be technologically modern or backward and then depending on its technology it can employ skilled or unskilled workers.

Regardless of its technology a formal sector firm is most likely to see its workforce forming a union and can negotiate wage, or both wage and employment. The fact that the unions can engage in industrial disputes has some additional implications for firms that use modern technology. During a prolonged dispute, its capital is to suffer a loss in value much more than a backward technology dependent firm. This would make a modern firm to some extent more vulnerable, and its employer may try to reduce its vulnerability by hiring some workers on contract, if they are unskilled. Hiring them gives the firm leverage against a strong union, simply by reducing the employment of some skilled workers.

Now imagine that the economy is exposed to trade liberalisation. If the industry was primarily export oriented, it gets a boost in export. But only the formal sector firms can export, because the informal firms are not registered. Therefore the informal firms do not benefit much from the export opportunities, even though they might have stronger comparative advantage. They might still indirectly benefit from the substitution of the formal firms as they will supply less to the domestic market to meet the increased export demand.

This can be graphically explained. Consider Figure 1 where we demonstrate how the industry equilibrium and its distribution of labour are affected, when there is a positive export shock. Assuming that there is no import, and all of its output are either consumed at home or exported overseas, the aggregate supply consists of the informal and the formal firms' output, given by the curve  $S_I + S_F$ . On the demand side, we have both the domestic demand denoted by  $D$  and the export demand denoted by  $X$ . The inverse aggregate demand curve is given by the line  $D + X$ . We first show the equilibrium before the export shock occurs. The equilibrium output and price are  $Q_0$  and  $p_0$ . Out of  $Q_0$ , the informal sector's supply is  $Q_I$ ; the rest is supplied by the formal firms out of which  $(Q_F - Q_I)$  is supplied to the domestic market and  $(Q_0 - Q_F)$  is exported abroad. As a positive export shock occurs, the aggregate demand curve shifts rightward as given by the  $D + X'$  curve. The equilibrium output and price both rise to  $Q_I$  and  $p_I$  respectively. The formal sector firms raise their exports and overall production, but also cut down their domestic supply. Their overseas supply increases to  $(Q_I - Q_F^*)$  and domestic supply falls to  $(Q_F^* - Q_I^*)$ , making room for the informal sector to increase their supply to overseas supply increases to  $Q_I^*$ . This is the indirect benefit of the informal sector.

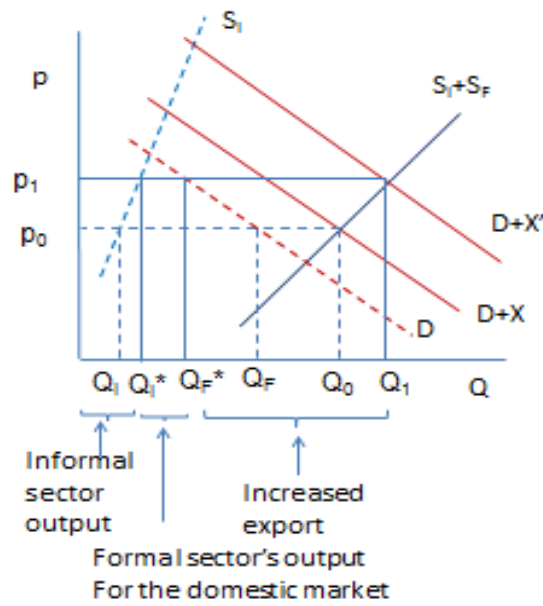


Figure 1: Effects of an increase in export demand

Now consider another industry that does not export, and instead receives some import. Before liberalisation, the equilibrium price is higher than the international price, as shown in Figure 2. The inverse demand curve (which represents only domestic demand) is given by the line  $D$ . On the other hand, the supply comes from three sources: the informal sector (denoted by the inverse supply curve  $S_I$ ), the formal sector (denoted by  $S_F$ ), and import denoted by  $M$ . The initial equilibrium output and price are  $Q_0$  and  $p_0$  respectively. The informal sector's supply is  $Q_I$  and the formal sector's supply is  $(Q_F - Q_I)$ , and the total import is  $(Q_0 - Q_F)$ . Now if there is full trade liberalisation leading to greater import, the equilibrium price will fall and the equilibrium quantity will rise. Due to a fall in the price, the supply of both the informal and formal firms will fall to  $Q_I^*$  and to  $(Q_F^* - Q_I^*)$  respectively. But the total import will rise to  $(Q_I - Q_F^*)$ . The economy as a whole consumes more output as the import overwhelms the domestic suppliers.

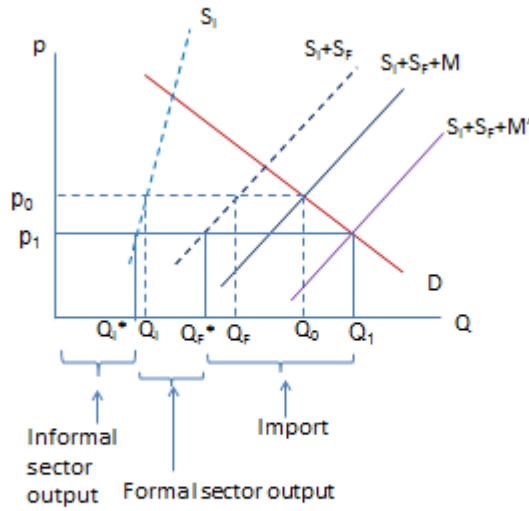
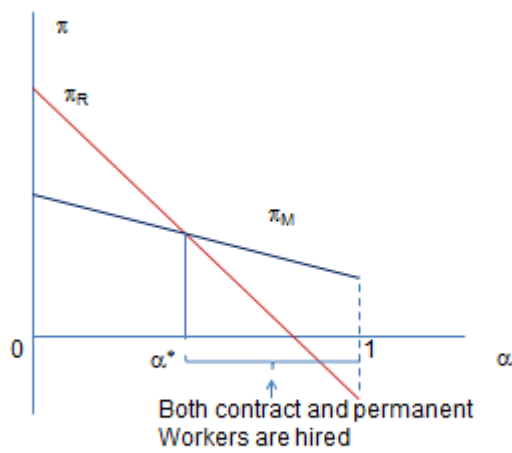


Figure 2: Effects of an import shock

Industries that are vulnerable to import competition are aware of the fact that any unexpected wave of imports will force them to cut production and lay off workers. So it will be wise to have more contract workers in their workforce than permanent workers, even if that means taking some low skilled workers and take a hit on productivity. The contract workers can be laid off, whenever there is a time of increased competition from imports. So we should expect a positive relationship between import penetration of an industry and the share of contract workers. But this is not the only reason to hire contract workers. Even if the firms are not exposed to foreign competition, as argued above, to hedge against a militant union, the firm can choose to hire some contract workers. Thus, there are two motives for hiring contract workers, to deal with militant trade unions and to protect against import competition. But contract workers are likely to have lower productivity, particularly in modern firms, and that is a price firms have to pay to resort to this type of flexible employment practices.

One may ask: what type of firms is most likely to go for mixed mode of employment? Clearly, the answer depends on how powerful the union is. In Figure 3 we provide a graphical analysis. For more details see Saha et al. (2013). On the horizontal axis we measure the union's bargaining power denoted by  $\alpha$ , which can vary from 0 to 1. The firm's bargaining power is  $1-\alpha$ . The firm's profit is measured along the vertical axis. There are two profit curves corresponding to two options the firm has. It can hire only skilled workers as permanent workers in which case its profit is given by the  $\pi_R$  curve. Alternatively, it can mix some skilled workers (as permanent) with some unskilled workers as

contract workers; the profit then is represented by the  $\pi_M$  curve.<sup>5</sup> At low values of  $\alpha$ , profit from hiring the skilled workers (as permanent workers) dominates, because the firm does not lose much to a weak union and because of the skills of the workers output is also high. On the other hand, at high values of  $\alpha$ , much of the surplus is taken away by the union due to their high bargaining power; the firm would be better off hiring non-unionised contract workers despite their low skills. Thus, as Figure 3 shows, there is a critical value of  $\alpha$ , above which we will see firms would prefer a flexible workforce.



**Figure 3: Flexible workforce**

In reality measuring the workers' bargaining power is a much more complex task. It depends on the legal and regulatory structure of the state in which the firm is located, and it also depends on the size of the firm, technology and the type of product it is making. In particular how much it is exposed to trade is critically important. So, as the workers' bargaining power varies between industry and state, so will firms' practice of hiring.

Saha et al. (2013) has studied the contract labour problem for the Indian organized sector by using a three dimensional panel of 58 industries over the period of 1998 to 2004 for fifteen major Indian states. They show that the share of contract workers in formal firm's employment goes up with union's bargaining power (as captured by the union density or strike-lockout ratio). The same

<sup>5</sup> There are two other possibilities: hire some skilled workers also as contract workers, and hire some unskilled workers as permanent workers. In Saha et al. (2013) we show that with a mild assumption on the nature of contracting we can rule out these two options as never being chosen.



response is seen vis-a-vis import penetration, as the above theoretical discussion suggests. Moreover, they also find that the positive effect of import penetration and the negative effect of export promotion on the share of contract labour are both stronger in those states, which have pro-worker labour laws. In sum they conclude that stricter labour regulations as well as trade liberalisation have both led to increased contract labour usages.

## **5. Conclusion**

There is now considerable evidence that labour regulations in India are hurting formal sector employment and encouraging subversive practices. But whether these regulations have been induced by political pressure groups, or institutional specificities or the legal tradition inherited from the British are yet to be understood. The research on this question is far more limited. Only recently some work has begun in this area with the contribution of Besley and Burgess (2004). If the source of the problem is in the political process, then the problem needs to be corrected there, rather than trying to experiment with different economic policies. On the other hand, if these institutions are trying to address economic inefficiencies (either with the markets or property rights) then it is imperative to identify the source of inefficiencies. This however, may take time, as more research is needed.

Meanwhile, it is important to recognize that no matter how undesirable we find the use of contract labour, subcontracting and similarly subversive employment practices, they are in part employers' response to some over-restrictive regulations. The challenge is to strike a compromise between the workers' interests and the firms' investment incentives. This does not necessarily mean that the union's power needs to be curbed; rather both unions and employers need to be held accountable for their actions, and an environment should be created to discourage opportunism and enforce cooperation. Reforming labour regulations in this direction is more imperative now than ever before, because postponing that will only prolong industrial dualism and increase its spread to all sectors.

## **References**

Adhvaryu, Achyuta, Chari, A.V. and Siddharth Sharma. 2013. 'Firing Costs and Flexibility: Evidence from Firms' Employment Responses to Shocks in India', *Review of Economics and Statistics*, 95(3): 727-740.

Aghion P, R. Burgess, S. Redding and F. Zilibotti (2008), The Unequal Effects of Liberalization: Evidence from Dismantling the License Raj in India, *American Economic Review*, 98(4): 1397–1412.

Ahsan, Ahmad, Pagés, Carmen, 2009. Are all labor regulations equal? Evidence from Indian manufacturing. *Journal of Comparative Economics* 37 (1), 62–75.

Autor, D. (2003) Outsourcing at Will: The Contribution of Unjust Dismissal Doctrine to the Growth of Employment Outsourcing, *Journal of Labour Economics*, 23(1): 1-42.

Becker, G., (1983) A Theory of Competition among Pressure Groups for Political Influence, *Quarterly Journal of Economics*, XCVIII, 371-400.

Besley, T. and Burgess, R. (2004). Can Labour Regulation Hinder Economic Performance? Evidence from India, *The Quarterly Journal of Economics*, 119(1):91-134.

Bhalotra, S., “The Puzzle of Jobless Growth in Indian Manufacturing,” *Oxford Bulletin of Economics and Statistics*, Vol. 60, No. 1, 1998, pp. 5-32.

Bhattacharjea, Aditya, 2006. Labour market regulation and industrial performance in India: A critical review of the empirical evidence. *Indian Journal of Labour Economics* 49 (2), 211–232.

Booth, A. and M. Chatterji, (1998). Unions and Efficient Training, *Economic Journal*, 108: 328-343.

Botero, J., Djankov, S., Porta, R. L., Lopez-De-Silanes, F, and Shleifer, A. (2004). The Regulation of Labour, *The Quarterly Journal of Economics*, 119(4):1339-1382

Chan, Anita, “Chinese Trade Unions and Workplace Relations in State-owned and Joint-venture Enterprises,” in Malcolm Warner (ed), *Changing Workplace Relations in the Chinese Economy*, (London: Macmillan Press, 2000).

Djankov, Simeon, La Porta, Rafael, Lopez-de-Silanes, Florencio, Shleifer, Andrei, 2003. Courts. *Quarterly Journal of Economics* 118 (2), 453–517.

Djankov, S. and R. Ramalho (2009), Employment laws in developing countries, *Journal of Comparative Economics*, Vol. 37, pp. 3-13.

Dutta Roy, S. (2003) Employment Dynamics in Indian Industry: Adjustment Lags and the Impact of Job Security Regulations, *Journal of Development Economics*, Vol. 73, pp. 233-256.

Fallon, P. and Lucas, R. (1991) The Impact of Job-security Regulations in India and Zimbabwe, *The World Bank Economic Review*, Vol. 5, No. 3, 1991, pp. 395-413.

Fallon, P. and Lucas, R. (1993) Job-security Regulations and the Dynamic Demand for Labour in India and Zimbabwe, *Journal of Development Economics*, 40(2): 241-75.

Grout, P. (1984), Investment and wages in the absence of binding contracts: a Nash bargaining approach, *Econometrica*, 42, 449-60.

Hart, O. (1989) Bargaining and strikes, *Quarterly Journal of Economics*, 104(1): 25-43

Hasan, R., D. Mitra and K.V. Ramaswamy (2007), Trade Reforms, Labor Regulations and Labour-Demand Elasticities: Empirical Evidence from India, *The Review of Economics and Statistics*, 119(3): 466-481.

Lindbeck, A. and Snower, D., (1986). Wage Setting, Unemployment and Insider-Outsider Relations, *American Economic Review, Papers and Proceedings*, 76: 235-239.

Mazumdar, D. and Sarkar, S. (2013) *Manufacturing Enterprise in Asia*, Routledge, London

McDonald, I. M. and Solow, R. M. (1981), Wage bargaining and employment, *American Economic Review*, 71(5): 896-908

Nickell, S., 1986. Dynamic models of labour demand. In: Ashenfelter, O., Layard, R. (Eds.), *Handbook of Labour Economics*. North-Holland, Amsterdam.

Nickell, Stephen, 1997. Unemployment and labor market rigidities: Europe versus North America. *Journal of Economic Perspectives* 11, 55–74.

North, D.C. (1990), *Institutions, Institutional Change, and Economic Performance*, Cambridge University Press, New York

Olson, M., (1965) *The Logic of Collective Action* (Cambridge, MA: Harvard University Press, 1965)

Oswald, A. (1982) The Microeconomic Theory of the Trade Union, *Economic Journal*, 92, 576-595.

Pal, R., Saha, B. (2013) Labour markets: Balancing freedom and protection, in Goyal, A. (ed.) *Handbook of the Dynamic Indian Economy*, Oxford University Press, UK and New Delhi.

Ramaswamy, K. V., (1999) The Search for Flexibility in Indian Manufacturing, *Economic and Political Weekly*, Vol 34(6), February 6, pp. 363-368.

Saha, B., Sen, K. and Maiti, D., (2013), Trade Openness, Labour Institutions and Flexibilisation: Evidence from India (with Kunal Sen and Dibyendu Maiti), *Labour Economics*, vol. 24, pp. 180-195

Saha, B., (2006). Labour Institutions in India and China: A Tale of Two Nations, *Journal of South Asian Development*, 1: 179-205.

Sanchez-Pages, S., (2009) Conflict as a part of the bargaining process, *Economic Journal*, 119: 1189-1207.

Solinger, Dorothy J., (2002) Labor market reform and plight of the laid-off proletariat, *China Quarterly*, Vol. 169, 2002, pp. 305-326.

Stigler, G., (1971) The theory of economic regulation, *Bell Journal of Economics and Management Science*, Vol. II, 3-21.